

REMARKS

Claims 1-26 are pending in the application. Claims 1, 10, and 18 have been amended herein. New Claims 27 – 32 have been added. The listing of claims includes amendments made by the examiners amendment of January 24, 2005. Favorable reconsideration of the application, as amended, is respectfully requested.

I. REJECTION OF CLAIMS UNDER 35 USC § 112

Claim 10 stands rejected under 35 USC 112 as being indefinite. The examiner indicates that “the porous joint compound sanding screen” lacks antecedent basis. Claim 10 has been amended by replacing the word “the” with “a”.

II. REJECTION OF CLAIMS UNDER 35 USC § 103

Claims 1-5, 10-13, and 18-26 stand rejected under 35 USC 103(a) as being unpatentable over US Patent 4,381,628 to Dicke in view of US Patent 4,779,385 to Reiter.

Understanding the differences between the applicant’s invention, as a whole, and the references, as a whole, requires understanding the distinction between sand paper and a porous joint compound sanding screen.

Sand paper in its ordinary meaning consists of an abrasive (traditionally sand) on a front surface of a backing (traditionally paper). The abrasive front surface performs the abrading action. Holes, if they exist in sand paper, are holes through the abrading surface of the sand paper and reduce the overall surface area available for performing the abrading action.

A porous joint compound sanding screen, on the other hand, in its ordinary meaning, is a uniformly porous screen mesh. The uniformly porous sanding screen, by virtue of being a porous screen mesh structure itself performs the abrading action. The pores of a uniformly porous joint compound sanding screen

are an integral part of the abrading surface of the sanding screen – not holes through the abrading surface of the sanding screen.

Dicke discloses a very traditional means for collecting dust by forming a vacuum about the periphery of the abrasive surface of sand paper. An electrically driven sander includes an oscillating platen 32. A shroud or skirt 74 is coupled to dust collecting fan blades 50 to draw air (indicated by arrows 76) and dust from around the periphery of the platen 32. Dust generated by the abrading action of sand paper is “worked” (by the oscillating motion) to the periphery of the sand paper where it is drawn into the dust collection fan.

Reiter discloses an un-powered sanding device for use with a sheet of sanding paper. Reiter teaches a similar means for collecting dust by allowing the sanding action to “work” the dust to the periphery of the abrading surface of the sand paper where it is drawn into a region of negative air pressure formed by a vacuum. Reiter teaches that holes can be added to the sand paper so that dust can pass through the sand paper into the vacuum 46. It must be appreciated that adding holes to the abrading surface of sand paper simply increases the size of the periphery of the abrasive surface (the perimeter of the hole become added periphery to the abrasive surface) to which dust is “worked” by the sanding motion and then drawn into the vacuum formed at the periphery of the abrading surface. Neither Reiter nor Dicke teach or suggest drawing sanding dust through the abrasive surface of a uniformly porous joint compound sanding screen.

Understanding the differences between the applicant’s invention, as a whole, and the references, as a whole, further requires understanding the distinction between the problem solved by the references and the problem solved by the applicant’s invention.

Both Reiter and Dicke are directed to collection of dust generated by abrading action. The applicant’s invention is not only directed only to collecting dust generated by abrading action, but, as expressly stated in the applicant’s specification, is directed to solving a problem inherent in the use of sanding screens – that being that when a porous sanding screen is supported by a

traditional rubber or foam sanding block it becomes clogged and the user must periodically flex the screen with respect to the block to remove joint compound dust clogging the screen (See P1, L19-L24 and P9, L1-L7).

It should also be appreciated that teaching improved methods of traditional dust collection (e.g. "working" dust to the periphery of the abrading surface and collecting dust from the periphery) - even teaching adding holes to the abrading surface of sanding paper to increase the size of the periphery - is actually teaching away from drawing dust through the abrasive surface of a uniformly porous sanding screen - the solution invented by the applicants for solving the "clogged screen problem".

Claim 1

Claim 1, as amended, is directed to a joint compound sanding device. The joint compound sanding device comprises a hand held housing, a bottom plate, a dust collection fan, and a motor.

The bottom plate includes both: i) a plurality of dust collection apertures extending through the bottom plate between a vacuum manifold and a bottom surface of the bottom plate; and ii) a plurality of dust collection channels formed in the bottom surface of the bottom plate. The channels define mesas there between and the mesas support the porous joint compound sanding screen.

The dust collection fan includes a fan inlet joined to the vacuum manifold and the motor (coupled to the hand held housing) includes a rotating shaft coupled to the dust collection fan for rotating the fan and drawing air: i) through an abrasive surface of the porous joint compound sanding screen, ii) through the channels, and iii) through the apertures into the vacuum manifold.

As discussed above, neither Reiter nor Dicke teaches or suggests drawing air: i) through an abrasive surface of the porous joint compound sanding screen, ii) through the channels, and iii) through the apertures into the vacuum manifold.

Claim 10

Claim 10, as amended, is directed to a joint compound sanding device. The joint compound sanding device comprises a hand held housing, a bottom plate, a manifold, and means for moving the bottom plate with respect to the housing.

The bottom plate includes both: i) a plurality of dust collection apertures extending through the bottom plate between a vacuum manifold and a bottom surface of the bottom plate; and ii) a plurality of dust collection channels formed in the bottom surface of the bottom plate. The channels define mesas there between and the mesas support the porous joint compound sanding screen.

The hand held housing comprises a vacuum port for coupling the joint compound sanding device to an external suction source.

The manifold couples the vacuum manifold to the vacuum port such that air is drawn: i) through an abrasive surface of the porous joint compound sanding screen, ii) through the channels, and iii) through the apertures into the vacuum manifold.

As discussed above, neither Reiter nor Dicke teaches or suggests drawing air: i) through an abrasive surface of the porous joint compound sanding screen, ii) through the channels, and iii) through the apertures into the vacuum manifold.

Claim 18

Claim 18, as amended, is directed to a method of sanding hardened joint compound, the method comprises securing a porous joint compound sanding screen to a bottom plate that is connected to a hand held housing. The bottom plate comprises: i) a plurality of dust collection apertures extending through the bottom plate between the vacuum manifold and a bottom surface of the bottom plate; and ii) a plurality of dust collection channels formed in the bottom surface defining mesas there between. The mesas support the porous joint compound sanding screen.

The method includes: i) coupling a motor to the hand held housing and bottom plate for moving the bottom plate with respect to a hand held housing to create a sanding action; and ii) forming a vacuum within a vacuum manifold above

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the bottom plate to draw air and dust through an abrasive surface of the porous joint compound sanding screen, through the channels, through the dust collection apertures and into the vacuum manifold.

Claims 2-5, 11-13, and 19-26

Each of claims 2-5, 11-13, and 19-26 depend from one of independent claims 1, 10, or 18 and therefore can be distinguished over Reiter, Dicke, and the other art of record for the same reasons. Further, the additional elements and or steps recited in such claims further distinguish such claims over Reiter, Dicke, and the other art of record.


III. CONCLUSION

Accordingly, claims 1-42 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 501825.

Respectfully submitted,



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DATE: 8-9-05

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